



**COMPUTERIZED INTERACTOR SYSTEMS  
AND METHODS FOR PROVIDING SAME**

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SEP 04 2001

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Technology Center 2600

Jonathan R. Cohen, Debby Hindus, Bonnie M. Johnson, Andrew J. Singer, Lisa J. Stifelman, William L. Verplank, Scott C. Wallters, M. Margaret Withgott

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**Cross-Reference to Related Application**

This application claims the benefit of copending United States Patent Application Serial No. 08/692,830, filed July 29, 1996, which claims the benefit of United States Provisional Patent Application No. 60/001,875, entitled "Computerized Interactor Systems And Methods For Providing Same," filed August 3, 1995, each of which is incorporated herein by reference in its entirety.

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**Background of the Invention**

This invention relates generally to human/computer interfaces and more particularly to mechanical input devices for computerized systems.

It has become increasingly common to computerize systems, from the trivial (e.g., the computerized toaster or coffee pot) to the exceedingly complex (e.g., complicated telecommunications and digital network systems). The advantage of computerization is that such systems become more flexible and powerful. However, the price that must be paid for this power and flexibility is, typically, an increase in the difficulty of the human/machine interface.

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The fundamental reason for this problem is that computers operate on principles based on the abstract concepts of mathematics and logic, while humans tend to think in a more spatial manner. People inhabit the real world, and therefore are more comfortable with physical, three-dimensional objects than they are with the abstractions of the computer world. Since people do not think like computers, metaphors are adopted to permit people to effectively communicate with computers. In general,